

FROZEN HEAT AND SERVE EGG PATTY

[0001] The present invention relates to egg patties that can be cooked, frozen and then reheated to provide an egg patty that resembles an egg patty made from fresh eggs. More particularly, the egg patty includes liquid whole egg, an edible oil, freeze-thaw stabilizer, flavoring, phosphates and a pH controller each in amounts effective for providing an egg patty which is capable of being folded and which has a texture, color, flavor and appearance similar to fresh eggs.

BACKGROUND

[0002] Egg products for use in food articles are made on a commercial scale by depositing a liquid egg mixture into a mold or belt and cooking the liquid egg mixture. Egg patties produced by these types of processes tend to have a commercial processing appearance and do not have acceptable organoleptic properties, are not appetizing, and do not have desirable homemade or handmade appearances.

[0003] Previous commercial egg patties tended to be dense and lacked the fluffy texture of fresh scrambled eggs. Additionally, previous commercial egg patties differed in color than the bright yellow appearance of fresh eggs. Also, previous commercial egg patties lacked the flavor and aroma of fresh scrambled eggs. Therefore, a need exists to improve egg patties to have a light, tender and slightly moist texture; bright yellow appearance; and a flavor and aroma more reminiscent of fresh scrambled eggs.

[0004] Previous efforts to provide a more desirable appearing egg patty have resulted in the addition of dairy products to the egg. The addition of dairy products may create health risks for individuals having dairy allergies that consume the egg patties without knowing about a dairy product in them. Additions of dairy products may also result in a browning of the egg patty over time. Therefore, a need exists to develop an egg product with an improved appearance that does not include dairy products.

[0005] Some known commercially available egg patties contained only about 50% of eggs. The public has a right and an interest in knowing the contents of food it consumes. Therefore, a need exists for an egg patty containing a higher percentage of eggs, to comport with an individual's expectation of the food contents.

[0006] Additionally, egg patties containing only about 50% of eggs may lack nutrients naturally found in fresh eggs. A need exists for egg patties that contain a higher egg content to provide an increase in protein, Vitamin A, lutein, Vitamin D, Choline, and various other vitamins and minerals naturally found in eggs.

[0007] Some commercial retail suppliers of egg patties desire to fold scrambled eggs to provide a unique product which is readily served in a biscuit or bun. Fresh scrambled eggs do not readily tolerate a cook, freeze and reheat cycle and do not readily fold.

SUMMARY

[0008] The present invention is directed to a cooked egg patty which is frozen to provide a cooked frozen egg patty, and is capable of being reheated to provide an egg patty that resembles an egg patty made from fresh eggs. The composition of the egg patty prior to cooking and its method of

preparation are effective for providing a product that after freezing, thawing and reheating has sensory attributes of a freshly prepared scrambled eggs. Moreover, the egg patty of the invention will readily fold as compared to an egg patty of equal size and shape made from scrambled liquid whole egg.

[0009] The egg patty product of the present invention has a texture, color, flavor and appearance similar to fresh eggs. To provide a egg patty with characteristics similar to fresh eggs, the egg patty is made from a composition which is an egg blend which includes liquid whole egg, an edible oil, an amount of freeze-thaw stabilizer effective for providing freeze-thaw stability, flavor, a gum to suspend the freeze thaw stabilizer, phosphates and an amount of pH controller effective for providing a pH of 7.2 or less, preferably a pH of 6.4 to 7.2, more preferably a pH of 6.8 to 7.1, and most preferably a pH of 7.0 to 7.1. The oil, the modified food starch, and the gum all are in amounts effective for providing an egg patty made from the egg blend with foldability which is greater than an egg patty of the same size and thickness made from liquid whole egg. A modified food starch is an especially important and unique freeze-thaw stabilizer. Liquid whole egg is present in the egg blend in an amount effective for providing desired flavor, texture and aroma. In this aspect of the invention, the egg patty blend includes at least 90 weight percent, preferably from 95 to 98.5 weight percent, and more preferably 97 to 98 weight percent liquid whole egg based on the weight of the blend before cooking.

DETAILED DESCRIPTION

[0010] Unless defined otherwise, all technical and scientific terms used herein have the same meaning as commonly understood by one of ordinary skill in the art to which this invention belongs. All patents and publications referred to herein are incorporated by reference herein. For purposes of the present invention, the following terms are defined below.

[0011] "Liquid whole egg" means egg white and yolk in the ratio which is generally recognized as the ratio of yolk to white in shell eggs. That ratio generally is in the range of from about 1 part yolk to about 2 parts egg white. Liquid whole egg generally has about 23 to 24.5 weight percent solids and 76.5 weight percent water.

[0012] "Freeze-thaw stability" refers to an egg patty product that is capable of being frozen, thawed and then reheated such that product attributes of the resulting egg patty are similar to that of an egg patty that was prepared from fresh liquid whole egg that was not frozen and reheated. After reheating, the egg patty of the invention has a slightly mottled bright yellow color with a shiny surface. The external surface of the egg patty is slightly irregular with a porous or moon-cratered appearance. When the cooked egg patty is cut in half, the internal texture appearance is slightly striated in a vertical fashion and fold seams are barely detectable. When biting into the egg patty, the texture is light, tender and slightly moist. The product does not have a dry and crumbly feel or release an excess of free moisture. In an important aspect, the product is capable of going through at least one cycle of cooking, freezing and thawing.

[0013] "Flavor" refers to the natural whole egg flavor which is a multi-component mixture of natural and/or artificial flavoring ingredients.